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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,236	09/20/2001	Bulent M. Basol	042496/0269299 NT-209(U)	5866
20995	7590	11/10/2005	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			ZHENG, LOIS L	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/960,236

Applicant(s)

BASOL ET AL.

Examiner

Lois Zheng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 34 and 35 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18, 20, 33, 41 and 43 is/are allowed.
- 6) ☒ Claim(s) 1-17, 19, 21-32, 34-40, 42 and 44-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1, 18, 20, 24, 33, 36, 41 and 43 are amended in view of the amendment filed 25 August, 2005. New claims 51-52 are added in view of the amendment. Claims 34-35 remain withdrawn. Therefore, claims 1-33 and 36-52 remain under examination.

Note, in Fig. 14, numeral 50 should be changed to 500.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-3, 7, 9, 13-14, 23-24, 27-28, 31-32 and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uzoh et al. US 6,413,388 B1(Uzoh'388).

The teachings of Uzoh'388 are discussed in paragraph 7 of the previous Non-Final Office Action.

Regarding amended feature of a width of at least one channel varies along a length of the at least one channel as recited in claims 1 and 24, Uzoh'388 teaches a pad comprising fluid channels and holes disposed within the fluid channels(Fig. 6f). Uzoh'388 further teaches another embodiment of the pad having multiple radially extending grooves(Fig. 6g). The widths of the radially extending grooves vary long the lengths of the grooves. Therefore, it would have been obvious to one of ordinary skill in the art to have substituted the fluid channels on the pad as shown in Fig. 6f of Uzoh'388 with the multiple radially extending grooves as shown in Fig. 6g of Uzoh'388 in order to enhance fluid transfer and agitation between the substrate and the anode as taught by

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Uzoh'388(col. 15, lines 3-5). Therefore, the multiple radially extending grooves with holes disposed within as taught by Uzoh'388 read on the claimed at least one channel and the widths of the radially extending grooves as taught by Uzoh'388 vary along the lengths of the radially extending grooves as amended.

The remain limitations of instant claims 1 and 24 do not distinguish from the teachings of Uzoh'388 for the same reasons as stated in paragraph 7 of the previous Non-Final Office Action.

Regarding instant claims 2-3, 7, 9, 13-14, 23, 27-28 and 31-32, the instant claims are rejected for the same reasons as stated in paragraph 7 of the previous Non-Final Office Action.

Regarding new claim 52, the width of the radially extending grooves as taught by Uzoh'388 is increased as the grooves(i.e. channel) extend towards the edge channel portion, which meets the limitation of instant claim 52.

Regarding new claim 51, even though Uzoh'388 does not explicitly teach the claimed reducing channel width as the at least one channel extends toward the edge channel portion, one of ordinary skill in the art would have found the claimed feature of reducing channel width as the at least one channel extends toward the edge channel portion an obvious design choice absent persuasive evidence that particular channel configuration is significant. See MPEP 2144.04(IV). In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) .

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4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uzoh'388 in view of US co-pending application 09/472,523, now US 6,612,915, disclosed by Uzoh'388.

The teachings of Uzoh'388 are discussed in paragraph 7 of the previous Non-Final Office Action.

The instant claim is rejected for the same reason as stated in paragraph 8 of the previous Non-Final Office Action.

5. Claims 1-3, 7, 9, 13-15, 21-24, 27-28, 31-32 and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emesh et al. US 2002/0108861 A1(Emesh) in view of Uzoh'388.

The teachings of Emesh are discussed in paragraph 9 of the previous Non-Final Office Action.

However, Emesh does not explicitly teach the claimed amended feature of "a width of the at least one channel varies along a length of the at least one channel" as recited in amended claims 1 and 24.

The teachings of Uzoh'388 are discussed in paragraph 3 above.

Regarding instant claims 1 and 24, it would have been obvious to one of ordinary skill in the art to have incorporated the multiple radially extending grooves as shown in Fig. 6g of Uzoh'388 into the grooves on the polishing pad of Emesh in order to enhance fluid transfer and agitation between the substrate and the anode as taught by Uzoh'388(col. 15, lines 3-5). Therefore, the multiple radially extending grooves with holes disposed within as taught by Emesh in view of Uzoh'388 read on the claimed at

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least one channel and the widths of the radially extending grooves as taught by Emesh in view of Uzoh'388 vary along the lengths of the radially extending grooves as amended.

The remain limitations of instant claims 1 and 24 do not distinguish from the teachings of Emesh in view of Uzoh'388 for the same reasons as stated in paragraph 9 of the previous Non-Final Office Action.

Regarding instant claims 2-3, 7, 9, 13-15, 21-23, 27-28 and 31-32, the instant claims are rejected for the same reasons as stated in paragraph 9 of the previous Non-Final Office Action.

Regarding new claim 52, the width of the radially extending grooves as taught by Emesh in view of Uzoh'388 is increased as the grooves(i.e. channel) extend towards the edge channel portion, which meets the limitation of instant claim 52.

Regarding new claim 51, even though Emesh in view of Uzoh'388 do not explicitly teach the claimed reducing channel width as the at least one channel extends toward the edge channel portion, one of ordinary skill in the art would have found the claimed feature of reducing channel width as the at least one channel extends toward the edge channel portion an obvious design choice absent persuasive evidence that particular channel configuration is significant. See MPEP 2144.04(IV). In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) .

6. Claims 4-6, 8, 10-12, 17, 19, 36-40, 42 and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emesh in view of Uzoh'388, and further in view of Uzoh et al. US 6,261,426 B1(Uzoh'426).

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The teachings of Emesh in view of Uzoh'388 are discussed in paragraph 5 above. However, Emesh in view of Uzoh'388 do not specifically teach the claimed plurality of holes dimensioned to provide greater flow at the edge portion of the pad than in the central portion of the pad as claimed.

The teachings of Uzoh'426 are discussed in paragraph 11 of the previous Non-Final Office Action.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the various size openings of Uzoh'426 into the holes of the polishing pad channels of Emesh in view of Uzoh'388 for the same reason as stated in paragraph 11 of the previous Non-Final Office Action.

Regarding instant claims 4-5, 10-12, 17, 19, 36-40, 42 and 48-49, the instant claims are rejected for the same reason as stated in paragraph 11 of the previous Non-Final Office Action.

Regarding instant claims 6, 8 and 44-47, the rejection ground is maintained for the same reason as stated in paragraph 12 of the previous Non-Final Office Action.

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Emesh in view of Uzoh'388, and further in view of Uzoh et al. US 6,612,915(Uzoh'915).

The teachings of Emesh in view of Uzoh'388 are discussed in paragraph 5 above. However, Emesh in view of Uzoh'388 do not explicitly teach the claimed at least two electrical contacts as recited in instant claim 25.

The teachings of Uzoh'915 are discussed in paragraph 13 of the previous Non-Final Office Action.

Therefore, one of ordinary skill in the art would have incorporated the electrical contact ring with plurality of contact members as taught by Uzoh'915 into the apparatus of Emesh in view of Uzoh'388 for the same reason as stated in paragraph 13 of the previous Non-Final Office Action.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Emesh in view of Uzoh'388, and further in view of Basol et al. US 2002/0134748 A1(Basol).

The teachings of Emesh in view of Uzoh'388 are discussed in paragraph 5 above. However, Emesh in view of Uzoh'388 do not explicitly teach the claimed slit extends part the edge region of the workpiece as recited in the instant claim 16.

The teachings of Basol are discussed in paragraph 14 of the previous Non-Final Office Action.

Therefore, it would have been obvious to one of ordinary skill in the art to have utilized the shaping plate or belt(i.e. rectangular shaped mask plate) of Basol into the polishing pad of Emesh in view of Uzoh'388 for the same reason as stated in paragraph 14 of the previous Non-Final Office Action. The remaining limitation of instant claim 14 does not distinguish over the teachings of Emesh in view of Uzoh'388 and Basol for the same reason as stated in paragraph 14 of the previous Non-Final Office Action.

9. Claims 26 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emesh in view of Uzoh'388 and Uzoh'915, and further in view of Basol.

The teachings of Emesh in view of Uzoh'388 and Uzoh'915 are discussed in paragraph 7 above.



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However, Emesh in view of Uzoh'388 and Uzoh'915 do not explicitly teach the claimed rectangular shaped mask plate as recited in instant claim 26.

The teachings of Basol are discussed in paragraph 14 of the previous Non-Final Office Action.

Regarding instant claim 26, it would have been obvious to one of ordinary skill in the art to have utilized the shaping plate or belt(i.e. rectangular shaped mask plate) of Basol into the polishing pad of Emesh in view of Uzoh'388 and Uzoh'915 for the same reason as stated in paragraph 15 of the previous Non-Final Office Action. In addition, The remaining limitation of instant claim 26 does not distinguish over the teachings of Emesh in view of Uzoh'388, Uzoh'915 and Basol for the same reason as stated in paragraph 15 of the previous Non-Final Office Action.

Regarding instant claims 29 and 30, the claims are rejected for the same reason as stated paragraph 15 of the previous Non-Final Office Action.

10. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Emesh in view of Uzoh'388 and Uzoh'426, and further in view of Basol.

The teachings of Emesh in view of Uzoh'388 and Uzoh'426 are discussed in paragraph 6 above. However, Emesh in view of Uzoh'388 and Uzoh'426 do not explicitly teach the claimed slit extends part the edge region of the workpiece as recited in the instant claim 50.

The teaching of Basol are discussed in paragraph 14 of the previous Non-Final Office Action.

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Therefore, it would have been obvious to one of ordinary skill in the art to have utilized the shaping plate or belt(i.e. rectangular shaped mask plate) of Basol into the polishing pad of Emesh in view of Uzoh'388 and Uzoh'426 for the same reason as stated in paragraph 16 of the previous Non-Final Office Action.

Regarding instant claim 50, the claim is rejected for the same reason as stated in the rejection of instant claim 16 above.

***Allowable Subject Matter***

11. Claims 18, 20, 33, 41 and 43 are allowed.

***Response to Arguments***

12. Applicant's arguments with respect to claims 1-52 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lois Zheng whose telephone number is (571) 272-1248.

The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LLZ

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